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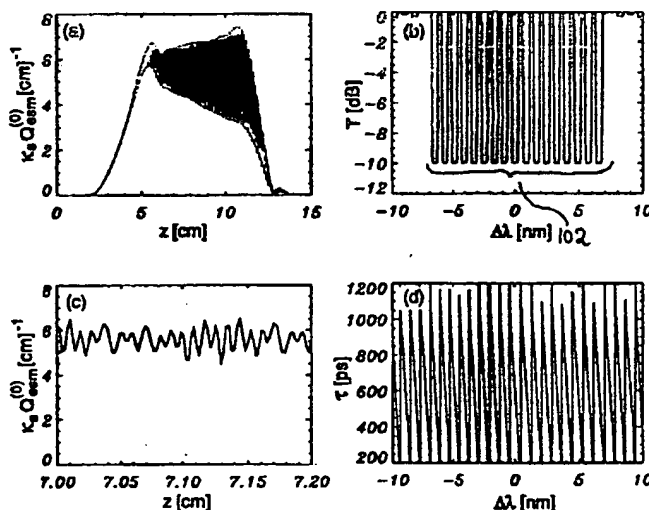
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(54) Title: IMPROVED MULTI-CHANNEL GRATING DESIGN TECHNIQUE



(57) Abstract: A method of improving a grating design function describing a refractive index variation defining a multi-channel grating structure in a waveguide material, the improvement being a reduced maximum refractive index variation in the waveguide material along the grating structure while maintaining a desired functional spectral domain in a spectral response function associated with the design function, the method comprising the steps of modifying a first design function to generate a second design function having a reduced maximum amplitude compared with the first design function, determining a second response function associated with the second design function, modifying the second response function to create a third response function having a desired functional spectral domain, and determining a third design function associated with the third response function, and iterating the method steps until the desired improvement is achieved, wherein the third design function of the previous iteration takes the place of the first design function of the next.

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